

What is claimed is:

1. An LED lamp comprising:

a circuit substrate provided with an electrode pattern;

a light emitting unit mounted on said circuit substrate; and

a reflecting frame mounted on said circuit substrate and including a concave portion disposed to surround said light emitting unit,

a reflecting surface for reflecting light emitted from the light emitting unit being formed on an inner peripheral surface of the concave portion,

said reflecting surface having a taper shape configured to broaden toward an upper end of the reflecting frame.

2. The LED lamp according to claim 1, wherein said light emitting unit includes a plurality of light emitting diode elements and a transparent or translucent resin material to seal said light emitting diode elements.

3. The LED lamp according to claim 2, wherein the plurality of light emitting diode elements comprise a semi-conductor of a gallium nitride system compound.

4. The LED lamp according to claim 2, wherein the plurality of light emitting diode elements are spaced equally peripherally of a central portion of the reflecting surface.

5. An LED lamp comprising:

a circuit substrate provided with an electrode pattern;

a light emitting unit mounted on said circuit substrate;

a reflecting frame mounted on said circuit substrate and including a concave portion disposed to surround said light emitting unit;

a lens body disposed above the light emitting unit and attached to said reflecting frame to form an air layer between the light emitting unit and the lens body; and

an air hole provided in at least one of the circuit substrate, reflecting frame and the lens body for communicating the air layer with an outside of the lamp,

a reflecting surface for reflecting light emitted from the light emitting unit being formed on an inner peripheral surface of the concave portion,

said reflecting surface including a taper shape configured to broaden toward an upper end of the reflecting frame.

6. The LED lamp according to claim 5, wherein said lens body has a light incident surface and a light exit surface, and at least one of the light incident and exit surfaces comprises a convex surface or fresnel surface.

7. The LED lamp according to claim 5,

wherein said lens body has a light incident surface and a light exit surface,

wherein one of the light incident and exit surfaces is composed of

a convex surface or fresnel surface and another thereof is composed of a planar surface,

wherein the convex surface or fresnel surface is disposed to face the light emitting unit.

8. The LED lamp according to claim 1, wherein said light emitting unit includes one or more light emitting diode elements and a transparent or translucent resin material to seal the light emitting diode elements.

9. The LED lamp according to claim 5, wherein said light emitting unit includes one or more light emitting diode elements and a transparent or translucent resin material to seal the light emitting diode elements.

10. The LED lamp according to claim 1, wherein said light emitting unit includes a blue light emitting diode element, a resin body to seal the blue light emitting diode element and a fluorescent material of yttrium, aluminum, garnet (YAG), mixed in the resin material, in order to obtain a light emitting color of white.

11. The LED lamp according to claim 5, wherein said light emitting unit includes a blue light emitting diode element, a resin body to seal the blue light emitting diode element and a fluorescent material of yttrium, aluminum, garnet (YAG), mixed in the resin material, in order to obtain a light emitting color of white.

12. The LED lamp according to claim 1, wherein said light emitting unit includes a three kind of light emitting diode elements comprising red, green and blue colors and a resin body to seal the light emitting diode elements.

13. The LED lamp according to claim 5, wherein said light emitting unit includes a three kind of light emitting diode elements comprising red, green and blue colors and a resin body to seal the light emitting diode elements.

14. The LED lamp according to claim 1, wherein a mirror surface or plating surface is provided on said inner peripheral surface of the concave portion.

15. The LED lamp according to claim 5, wherein a mirror surface or plating surface is provided on said inner peripheral surface of the concave portion.

16. The LED lamp according to claim 1, said circuit substrate and the reflecting frame are formed by a molded interconnect device to form a circuit and an electrode on a resin molding of a three-dimensional shape.

17. The LED lamp according to claim 5, said circuit substrate and the reflecting frame are formed by a molded interconnect device to form a circuit and an electrode on a resin molding of a three-dimensional shape.